CORRIGENDA.

The numbers of the charts "XXXIII–51, Chart XI," and "XXXIII–52, Chart XII," should be transposed.

THE WEATHER OF THE MONTH.

By Mr. P. C. DAY, Acting Chief, Division of Meteorological Records.

PRESSURE.

The distribution of mean atmospheric pressure is graphically shown on Chart VIII and the average values and departures from normal are shown in Tables I and V.

The normal distribution of atmospheric pressure over the United States and Canada for April shows well-marked transitional conditions from the winter types of pressure to those of summer. Over the north Pacific coast, and extending into British Columbia, the summer type of high pressure has become well established by the end of April; the low over the Southwest has intruded northward and eastward far into the Rocky Mountain and western plains region. The continental winter type of high pressure, covering the Rocky Mountains and western plains, has gradually drifted eastward and covers the region from the Lakes northward toward Hudson Bay and southward to the Gulf, the ridge of highest pressure lying between the meridians of 80° and 85° and diminishing by gentle gradients eastward and westward. This shifting of the positions of the areas of high and low pressure gives to New England and the States surrounding the Lakes, prevailing northerly winds, and winter conditions still predominate, but with much diminished energy.

Under the influence of the extensive low covering the southern Rocky Mountain region and extending into Texas, Oklahoma, and Kansas warm southerly winds prevail over this section and summer conditions are fairly well established.

Over the northern Rocky Mountain and north Pacific region under the influence of the high pressure approaching from the Pacific coast warm southerly winds prevail.

During the current month the interior high area receded from the advanced eastward position it occupied during March and the center of high pressure over the Dakotas was far to the west and north of its normal position.

The northward extension of the low over the Gulf of California was considerably retarded and the north Pacific high had intruded but slightly beyond the coast line of Washington and Oregon.

Over the entire eastern slope of the Rocky Mountains and from central Texas northward the pressure was above the normal.

East of the above limits the pressure was everywhere below the normal, attaining a maximum negative departure of from .15 to .25 of an inch over New England, eastern Ontario, Quebec, and the Maritime Provinces of Canada.

West of the Rocky Mountains the pressure was also lower than the average, except over extreme northwestern Washington.

The normal pressure for April shows a uniform reduction from that of March over the entire United States and Canada, except from central Oregon and Washington westward and northward into British Columbia, and over the St. Lawrence Valley, and Maritime Provinces of Canada, where slight increases are noted.

During the current month the pressure diminished from that of March throughout all sections, except over the upper Missouri Valley, the north Pacific coast, and the British Northwest Territories.

TEMPERATURE OF THE AIR.

As a result of the retardation of the eastward drift of the interior high pressure area, cool northerly winds prevailed south and east of the Dakotas, and temperatures were, therefore, below the normal from the Lakes southward to the Gulf and west to the Rocky Mountains and into New Mexico and Arizona.

North of the high pressure area southerly winds and temperatures above the normal prevailed as far north as the field of observation extends.

The average temperatures for the several geographic districts and the departures from the normal values are shown in the following table:

Average temperatures and departures from normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England	8	43.3	+ 0.4	— 7.7	—1.9
Middle Atlantic	12	51.3	+ 0.9	— 7.9	—2.0
South Atlantic	10	62.4	+ 0.5	— 8.6	—2.2
Florida Peninsula*	8	71.2	+ 0.7	— 1.6	—0.4
East Gulf	9	65.4	— 0.4	—11.6	—2.9
West Gulf	7	65.9	— 1.1	—11.0	—2.8
Ohio Valley and Tennessee	11	54.8	— 0.6	—11.1	—2.8
Lower Lake	8	43.5	— 1.2	—10.0	—2.5
Upper Lake	10	40.7	+ 0.2	— 5.3	—1.3
North Dakota*	8	40.6	— 1.1	+ 8.3	+2.1
Upper Mississippi Valley	11	50.4	— 0.8	— 7.6	—1.9
Missouri Valley	11	49.4	— 1.5	— 4.7	—1.2
Northern Slope	7	43.3	— 1.3	+ 2.9	+0.7
Middle Slope	6	51.4	— 2.8	— 8.7	—2.2
Southern Slope*	6	57.0	— 3.5	—14.8	—3.7
Southern Plateau*	13	54.5	— 2.0	+ 3.0	+0.8
Middle Plateau*	8	47.6	+ 0.5	+ 9.2	+2.3
Northern Plateau*	12	48.5	+ 1.9	+10.6	+2.6
North Pacific	7	51.2	+ 2.6	+10.7	+2.7
Middle Pacific	5	57.2	+ 1.7	+10.3	+2.6
South Pacific	4	59.4	+ 0.7	+11.5	+2.9

* Regular Weather Bureau and selected cooperative stations.

In Canada.—Prof. R. F. Stupart says:

The temperature ranged from average to 1° and 2° below over the greater portion of Ontario, while elsewhere over the Dominion it was very generally above the average, the most pronounced positive departures being from 3° to 5° in parts of Quebec and New Brunswick, 3° in the northern portions of Alberta and Saskatchewan, 3° on Vancouver Island, and as much as 7° in Cariboo.

West of the Rocky Mountains and north of New Mexico and Arizona temperatures were generally from 2° to 3° above the normal. On the Atlantic coast also the temperature averaged slightly above the normal.

Abnormally cold weather occurred over practically all the territory east of the Rocky Mountains during the progress eastward of the high pressure area from the 14th to the 18th, carrying the line of freezing temperature into the northern parts of Mississippi, Alabama, and Georgia, the central part of South Carolina, and almost to the coast of North Carolina. No severe cold occurred west of the Rocky Mountains.

Temperatures as low as zero were reported from a few elevated points in the central Rocky Mountain district.

Maximum temperatures of 90°, or above, occurred over Florida and southern Georgia, extreme southern Texas, eastern Kansas, Oklahoma and Indian Territories, southern and western Arizona, and southeastern California.

PRECIPITATION.

The distribution of total monthly precipitation is shown on Chart III.

The normal rainfall for April is well distributed over all sections east of the Rocky Mountains, falling below two inches at a few isolated points only and rising above four inches over a comparatively small area in the lower Mississippi Valley.

On the Pacific slope comparatively heavy precipitation still prevails west of the Coast Range of mountains from northern California northward.

During the current month the precipitation was comparatively heavy over the central parts of North and South Carolina, eastern Georgia, the lower Mississippi Valley, Texas, the entire slope region from Nebraska and Wyoming southward, including Utah, and most points in New Mexico and Arizona.

In parts of central Louisiana, southern Arkansas, and central Texas the monthly fall exceeded ten inches. Over southeastern Wyoming, the western parts of Nebraska, Kansas, Oklahoma, and Texas, and in portions of New Mexico, Arizona, and Colorado the fall exceeded four inches.

At Phoenix, Ariz., and El Paso, Tex., the fall exceeded that for any preceding April since the beginning of observations at those points.

From the Lake region westward, including the upper Mississippi and Missouri valleys, the northern slope, the greater part of the Plateau region, and the entire Pacific slope the precipitation was much below normal.

At St. Paul, Minn., Bismarck and Williston, N. Dak., Roseburg, Oreg., and Eureka, Cal., the amounts for the current month were less than those recorded in any preceding April.

In a narrow area from southern Indiana to the Gulf the precipitation was also markedly deficient; at Nashville, Tenn., the amount recorded, 1.5 inches, being nearly 1.0 inch less than that of any preceding April.

The precipitation was generally well distributed throughout the month, and even in sections where the total amount was small, light showers were frequent.

Heavy rains occurred over southern Florida on the 21st; over the Gulf States on the 2d to 4th, inclusive, 24th, 25th, 29th, and 30th; in the Mississippi Valley on the 20th and 25th; and from southern Wyoming southward to the panhandle of Texas, and over New Mexico and Arizona, on the 19th, 20th, 23d, and 24th.

Snowfall.—The snowfall during the month was abnormally heavy over the southern Rocky Mountain region, and, with the heavy rainfall in addition, the ground at the end of the month was thoroughly soaked, the rivers were bank full of water, and the visible supply ample for all irrigation purposes.

Snow occurred over a large extent of the entire country, but was generally light, except in the territory indicated above.

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
		Inches.		*Inches.*	*Inches.*
New England	8	1.88	61	—1.2	—4.0
Middle Atlantic	12	2.69	84	—0.5	—2.1
South Atlantic	10	3.74	119	+0.4	—2.0
Florida Peninsula*	8	2.62	113	+0.3	+0.3
East Gulf	9	4.56	96	—0.2	+0.7
West Gulf	7	6.59	169	+2.7	+1.7
Ohio Valley and Tennessee	11	2.97	75	—1.0	—4.6
Lower Lake	8	2.58	109	+0.2	—2.0
Upper Lake	10	1.94	83	—0.4	—1.3
North Dakota*	8	0.41	21	—1.5	—2.2
Upper Mississippi Valley	11	2.22	76	—0.7	—2.2
Missouri Valley	11	2.22	76	—0.7	—0.5
Northern Slope	7	2.33	143	+0.7	+0.4
Middle Slope	6	3.88	178	+1.7	+3.2
Southern Slope*	6	4.32	186	+2.0	+4.3
Southern Plateau*	13	1.98	495	+1.5	+6.0
Middle Plateau*	8	1.40	140	+0.4	+1.1
Northern Plateau*	12	0.92	75	—0.3	—1.6
North Pacific	7	1.17	28	—3.0	—7.8
Middle Pacific	5	1.00	37	—1.7	—2.7
South Pacific	4	0.47	34	—0.9	+2.3

*Regular Weather Bureau and selected cooperative stations.

In Canada.—Professor Stupart says:

The precipitation was slightly above the average in sections of the interior of British Columbia, while in all other portions of the Dominion the average was not maintained, except at Swift Current in Assiniboia, where it was slightly exceeded. The negative departures were as a rule pronounced—this was especially the case in Manitoba, where the deficiency was generally more than an inch, likewise in the Maritime Provinces, where it was from one to three inches. In Ontario the deficiency was usually from half an inch to an inch and in the Northwest Territories about half an inch. A few snowfalls were experienced in all the Provinces, but no heavy falls were recorded, if we except the snowstorm of the 28th in the Northwest Territories which, however, was confined to a limited area.

HUMIDITY.

Over the Florida Peninsula and the Gulf States the relative humidity exceeded the normal and also over the entire Rocky Mountain section. Over the middle and southern slope and southern Plateau the normal was exceeded by from 10 to 20 per cent.

The averages by districts appear in the following table:

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
	%			%	
New England	69	— 4	Missouri Valley	65	0
Middle Atlantic	66	— 1	Northern Slope	65	+ 6
South Atlantic	72	0	Middle Slope	67	+10
Florida Peninsula	76	+ 2	Southern Slope	65	+13
East Gulf	76	+ 6	Southern Plateau	52	+22
West Gulf	75	+ 3	Middle Plateau	64	+ 7
Ohio Valley and Tennessee	65	0	Northern Plateau	57	+ 1
Lower Lake	70	0	North Pacific	73	— 4
Upper Lake	72	— 1	Middle Pacific	71	— 1
North Dakota	62	— 6	South Pacific	73	+ 5
Upper Mississippi Valley	68	0			

CLEAR SKY AND CLOUDINESS.

The amount of cloudiness during the month was in excess of the normal over all sections, except from the upper Mississippi Valley westward to the Pacific.

The distribution of clear sky is graphically shown on Chart IV, and the numerical values of average daylight cloudiness, both for individual stations and by geographic districts, appear in Table I.

The average for the various districts, with departures from the normal, are shown in the following table:

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	5.5	+ 0.2	Missouri Valley	5.5	+ 0.1
Middle Atlantic	5.4	+ 0.2	Northern Slope	5.4	0.0
South Atlantic	4.6	+ 0.2	Middle Slope	5.8	+ 1.4
Florida Peninsula	4.7	+ 0.8	Southern Slope	4.6	+ 0.4
East Gulf	5.5	+ 1.0	Southern Plateau	3.7	+ 1.3
West Gulf	5.6	+ 0.4	Middle Plateau	5.0	+ 0.5
Ohio Valley and Tennessee	5.8	+ 0.5	Northern Plateau	5.6	— 0.7
Lower Lake	6.0	+ 0.5	North Pacific	5.2	— 1.2
Upper Lake	6.0	+ 0.3	Middle Pacific	4.1	— 0.7
North Dakota	4.5	— 1.0	South Pacific	5.4	+ 1.5
Upper Mississippi Valley	5.2	— 0.3			

WIND.

The maximum wind velocity at each Weather Bureau station for a period of five minutes is given in Table I, which also gives the altitude of Weather Bureau anemometers above ground.

Following are the velocities of 50 miles and over per hour registered during the month:

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Chicago, Ill	29	58	w.	Mount Tamalpais, Cal	11	50	ne.
Cleveland, Ohio	16	52	nw.	Do	22	53	nw.
Do	17	51	nw.	Do	29	54	nw.
Columbus, Ohio	10	56	nw.	Do	30	60	nw.
Eastport, Me	6	60	sc.	New York, N. Y	10	56	w.
Hatteras, N. C	16	52	n.	Do	21	54	w.
Havana, Cuba	20	51	e.	Pittsburg, Pa	10	60	w.
Lexington, Ky	10	56	sw.	Pueblo, Colo	20	51	nc.
Memphis, Tenn	11	50	nw.	Sioux City, Iowa	3	54	n.
Do	29	52	w.	Tatoosh Island, Wash	3	52	e.
Modena, Utah	18	50	w.	Taylor, Tex	23	50	nw.
Mount Tamalpais, Cal	1	57	nw.	Williston, N. Dak	28	50	w.

DESCRIPTION OF TABLES AND CHARTS.

By Mr. WM. B. STOCKMAN, Chief, Division of Meteorological Records.

For description of tables and charts see page 20 of REVIEW for January, 1905.